



## HVAC ENERGY SAVINGS

Centralized heating, ventilation, and cooling (HVAC) systems provide most of the space conditioning throughout the District. These systems are designed to improve indoor environmental quality by heating or cooling air to desired temperatures, regulating interior moisture (i.e. humidity), maintaining proper airflow, and providing outside air to interior spaces. These are complex, energy-intensive systems and represent 61% of energy consumption in K-12 schools in our climate (source: US DOE). To help mitigate these costs while providing spaces that are conducive to learning and instruction, the District established HVAC setpoints that are in line with industry recommendations and those followed by other major school districts.

### **Occupied Cooling Temperature Setpoints:**

Instructional Areas 74 F ± 2 F

Admin Areas 74 F ± 2 F

### **Unoccupied Cooling Temperature Setpoints:**

Instructional Areas 85 F

Admin Areas 85 F

### **Occupied Heating Temperature Setpoints:**

Instructional Areas 70 F ± 2 F

Admin Areas 70 F ± 2 F

### **Unoccupied Heating Temperature Setpoints:**

Instructional Areas 60 F

Admin Areas 60 F

In Fiscal Year 2017-2018 the District spent over \$13 million on electricity. Of this, over \$7.93 million was spent on HVAC. Cooling represents approximately 75% of that amount, which amounts to over \$5.9 million in annual air conditioning costs. In prior years cooling temperatures were set anywhere from 65° -74°, with an observed average of 70°. Changing the setpoint by 1° Fahrenheit can impact energy consumption by at least 1%. Based on 2017-2018 data the values below represent expected annual HVAC costs at a range of setpoints.

Setpoint	Annual Energy Cost	Cost Impact
66 DF	\$6,191,948	\$(238,152)
67 DF	\$6,132,410	\$(178,614)
68 DF	\$6,072,872	\$(119,076)
69 DF	\$6,013,334	\$(59,538)
70 DF	\$5,953,796	\$-
71 DF	\$5,894,258	\$59,538
72 DF	\$5,834,720	\$119,076
73 DF	\$5,775,182	\$178,614
74 DF	\$5,715,644	\$238,152

We appreciate your understanding as we work to provide a comfortable and safe learning environment while also being mindful of our goals to save energy and be good environmental stewards.